

Fact Sheet



For Draft/Proposed Significant Modification Permitting Action Under 45CSR30 and Title V of the Clean Air Act

This Fact Sheet serves to address the changes specific to this Significant Modification, and shall be considered a supplement to the Fact Sheet corresponding with the Title V operating permit issued on May 24, 2011.

Permit Number: **R30-03300014-2011**
Application Received: **July 17, 2012**
Plant Identification Number: **033-00014**
Permittee: **Dominion Transmission, Inc.**
Facility Name: **Law Compressor Station**
Mailing Address: **445 West Main Street**
Clarksburg, WV 26301

Permit Action Number: *SM01* Revised: *Draft/Proposed*

Physical Location:	Good Hope, Harrison County, West Virginia
UTM Coordinates:	545.88 km Easting • 4335.35 km Northing • Zone 17
Directions:	From Clarksburg take Route 19 South thru Good Hope for 11 miles. Turn right across iron bridge onto Two Lick Road. Go 1.1 miles then turn right thru gate. Go 0.3 miles to station at top of hill.

Facility Description

Law Compressor Station is a natural gas transmission facility covered by Standard Industrial Classification (SIC) Code 4922. The station has the potential to operate seven (7) days per week, twenty-four (24) hours per day. The station consists of two (2) 660 HP natural gas fired reciprocating engines, two (2) 192.5 HP emergency generators, one (1) dehydrator reboiler, one (1) dehydration unit with a flare, one (1) air compressor, and seven (7) storage tanks of various sizes.

The purpose of this modification is to facilitate the replacement of the existing dehydration unit still, reboiler, and flare with new equipment. The new flare is subject to CAM. Additionally, this modification incorporates a general permit issued for the installation of two emergency generators.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]	
Regulated Pollutants	Change in Potential Emissions
Carbon Monoxide (CO)	+0.04
Nitrogen Oxides (NO _x)	-0.09
Volatile Organic Compounds (VOC)	-51.39
<i>PM₁₀ is a component of TSP.</i>	
Hazardous Air Pollutants	Change in Potential Emissions
Benzene	-0.46
Ethylbenzene	-0.74
Hexane	-0.22
Xylene	-8.67
Toluene	-2.05
Total HAPs	-12.11
<i>Some of the above HAPs may be counted as PM or VOCs.</i>	

Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains the potential to emit over 100 TPY of NO_x. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, Dominion Transmission, Inc. is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

The modification to this facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR2	Opacity requirements for boilers.
	45CSR6	Open burning prohibited.
	45CSR10	Sulfur requirements for fuel burned.
	45CSR13	Minor NSR permit.
	45CSR16	New stationary sources.
	45CSR30	Operating permit requirement.
	40 C.F.R. Part 60, Subpart JJJJ	Stationary spark ignition IC engines.
	40 C.F.R. Part 60, Subpart OOOO	Oil and gas production and transmission.
	40 C.F.R. Part 63, Subpart HH	Oil and natural gas production facilities.
	40 C.F.R. Part 64	Compliance Assurance Monitoring

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (<i>if any</i>)
G60-C041	10/13/2011	
R13-2963	4/3/2013	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table B ," which may be downloaded from DAQ's website.

Determinations and Justifications

Replacement of Equipment

The following equipment was removed with this modification:

- Dehydration unit still; Natco 5GR-1000-DX5 (DEHY01)
- Dehydration unit flare (DEHY)
- Dehydration unit reboiler; Production Equipment, Inc., 1513R (RBR01)

The equipment that was removed was replaced with the following equipment:

- Dehydration unit still; Cameron (DEHY02)
- Dehydration unit reboiler; Cameron (RBR02)
- Dehydration unit flare; QTI, Q100 (F1)

The emission units table was updated to reflect the equipment changes.

The applicability of the new equipment is as follows:

- Both the old and new reboiler are subject to 45CSR§2-3.1.
- The new flare is also subject to 45CSR6.
- The new dehydration unit is subject to 40 C.F.R. 63, Subpart HH.
- All equipment, except compressors, that are part of the glycol dehydration process are subject to 40 C.F.R. 60, Subpart OOOO.
- Some of the old, grandfathered units had monitoring requirements added under 45CSR§30-5.1.c. For the new units, these requirements were replaced with R13 permit requirements.

Removal of Rule 42 Requirements

Conditions 3.1.9 and 3.5.10 were removed from this permit. They were greenhouse gas requirements referencing 45CSR42. After the issuance of this permit renewal in 2011, Rule 42 requirements were no longer included in Title V permits.

New Flare Operating Requirements

Dominion Transmission, Inc. proposed to operate the flare according to the following requirements:

- The flare shall have a minimum heating value of 200 Btu/scf, as specified in 40 C.F.R. §60.18(c)(3)(ii). This requirement was added as Condition 5.1.11.d.
- The flare shall have a maximum exit velocity of 60 ft/sec, as specified in 40 C.F.R. §60.18(c)(4)(i). This requirement was added as Condition 5.1.11.e.

Since 40 C.F.R. §60.18 is now referenced in Condition 5.1.11, the exemption previously listed in condition 3.7.2 was removed.

Compliance Assurance Monitoring (CAM)

The Glycol Dehydration Unit Still (DEHY02) has potential pre-control device emissions equal to or greater than 100 percent of the amount required for a source to be classified as a major source. It has the pre-control device potential to emit over 100 TPY of VOCs. This emission unit is controlled by a flare (F1).

Dominion Transmission Inc. has proposed continuous monitoring of the flare flame using a computerized data acquisition, feedback, and control system to ensure the flare operates at all times the dehydration system is in operation. The detector will be installed to sight the most stable part of the flare flame at all firing rates. The detector will be connected to the control panel providing information as to the presence or absence of the flame.

Monitoring per the CAM Plan will be as follows:

		PSEU DEHY02
		Indicator No. 1
I.	Indicator	Flare (F1) operation
	Monitoring Approach	Continuous monitoring of the pilot flame using a computerized data acquisition, feedback, and control system to ensure the flare operates at all times the dehydration unit is in operation.
II	Indicator Range	Indicator provides data regarding presence or absence of flame.
	A. QIP threshold	The permittee has chosen not to propose a threshold at this time since it is not required for this permitting action by 40 C.F.R. §64.8(a). Although the threshold is not required, the language for a QIP as it relates to other applicable requirements is set forth as permit condition 5.2.9.
III	Performance Criteria	The detector will be installed, as specified by the manufacturer, to sight the most stable part of the flare flame at all firing rates. The installation will be performed by a trained, experienced representative of the manufacturer.
	A. Data Representativeness	
	B. Verification of Operational Status	All manufacturer's recommendations regarding periodic testing/checks for the proper installation and operations of the flame detecting device will be followed.
	C. QA/QC Practices and Criteria	For the device that detects the presence of a flame; calibration, maintenance, and operation will be conducted in accordance with manufacturer's specifications.
	D. Monitoring frequency	Continuous
	E. Data Collection Procedure	Continuous, alarmed signal is sent to the control panel and recorded in <i>Mhealth</i> , Dominion's computerized data acquisition, monitoring, and statistical analysis system.
	F. Averaging Period	There is no averaging period since the flare pilot flame is either present or absent.

The following conditions were added to this permit to ensure compliance with CAM:

- Condition 5.2.13 was added requiring Dominion Transmission, Inc. to use the flame detection system with a continuous recorder.
- Condition 5.5.3 was added requiring Dominion Transmission, Inc. to report any instance where the flame detection system malfunctions and/or any instance where the dehydration system was operated without the flare.

Additionally, the following general CAM requirements were added to this permit:

- Condition 5.2.5 was added to address commencement of operation requirements from 40 CFR §§ 64.7(a) and 64.6(d).
- Condition 5.2.6 was added to address maintenance requirements from 40 CFR § 64.7(b).
- Condition 5.2.7 was added to address continued operation requirements from 40 CFR § 64.7(c).
- Condition 5.2.8 was added to address documentation of need for improved monitoring requirements from 40 CFR § 64.7(e).
- Condition 5.2.9 was added to address Quality Improvement Plan (QIP) requirements from 40 CFR § 64.8.
- Condition 5.2.10 was added identifying an excursion as the absence of a pilot flame according to 40 CFR § 64.6(c)(2).

- Condition 5.2.11 was added to address response to exceedances or excursions according to the requirements in 40 CFR § 64.7(d).
- General recordkeeping and reporting requirements were added as conditions 5.4.10 and 5.5.10.

Since CAM now applies, the CAM exemption previously listed in condition 3.7.2 was removed.

R13-2963

R13-2963 was issued to facilitate the replacement of the existing dehydration unit still, reboiler, and flare with new equipment. As a result, the following changes were made to this Title V permit:

- Condition 3.1.9 requires all pollution control equipment and associated monitoring equipment to be operated and maintained in a manner consistent with safety and good air pollution control practices (condition 4.1.3 of R13-2963).
- Condition 3.4.1 contains recordkeeping requirements for monitoring information. Condition 4.4.1 of R13-2963 was added to this condition's citation.
- Condition 3.4.4 was added requiring records of maintenance of air pollution control equipment (condition 4.4.2 of R13-2963).
- Condition 3.4.5 was added requiring records of malfunctions of air pollution control equipment (condition 4.4.3 of R13-2963).
- Condition 4.1.1 limits RBR02 to a maximum opacity of 10%. Condition 5.1.2 of R13-2963 was added to this condition's citation.
- Condition 4.1.2 was added placing emission limits for RBR02 (condition 5.1.1 of R13-2963).
- Condition 4.2.1 was added requiring Method 9 emission observations (condition 5.2.1 of R13-2963) to demonstrate compliance with the visible emissions limits of condition 4.1.1.
- Condition 4.4.1 was added requiring records of actual operating hours (condition 5.4.1 of R13-2963).
- Condition 4.5.1 was added requiring reports of any deviations from the visible emissions requirements (condition 5.5.1 of R13-2963).
- Condition 5.1.2 was revised adding an opacity limit of 40% for startups (condition 6.1.4 of R13-2963).
- Condition 5.1.4 forbids objectionable odors. Condition 6.1.4 of R13-2963 was added to this condition's citation.
- Condition 5.1.5 limits HAP emissions below the major source thresholds of 10 tpy of any individual HAP or 25 tpy of aggregate HAPs. Condition 4.1.2 of R13-2963 was added to this condition's citation.
- Dehydration Unit Still Requirements:
 - Condition 5.1.9 sets emission limits for the dehydration unit still and flare (condition 6.1.1 of R13-2963).
 - Condition 5.1.14 clarifies that the benzene emission limit established in condition 5.1.9 meets the exemption criteria of <0.9 Mg/yr (<1.0 Tons/yr) for 40 C.F.R. 63, Subpart HH (condition 6.1.7 of R13-2963).
 - Condition 5.2.1 was revised to state that this condition also demonstrates compliance with the benzene exemption in condition 5.1.14 (condition 6.2.1 of R13-2963).
 - Condition 5.3.1 was revised to reflect current NSR permit language for testing using GPA Method 2286 and GLYCalc (condition 6.3.1 of R13-2963).
 - Condition 5.4.3 requires records of actual operating hours to ensure compliance with condition 5.1.9 (condition 6.4.1 of R13-2963).
- Wet Natural Gas Throughput for the Glycol Dehydration Unit/Still Column:
 - Condition 5.1.10 sets the maximum wet natural gas throughput to the glycol dehydration unit/still column at 9 mmscf/day (3,285 mmscf/yr) (condition 6.1.2 of R13-2963).
 - Condition 5.2.12 requires daily and monthly monitoring of the wet natural gas feed to ensure compliance with condition 5.1.10 (conditions 6.2.2 of R13-2963).
 - Condition 5.4.4 requires records of wet natural gas throughput to ensure compliance with condition 5.1.10 (condition 6.4.2 of R13-2963).
- Additional Dehydration Unit Flare Requirements:
 - Condition 5.1.11 establishes operating requirements for the dehydration unit flare (condition 6.1.3 of R13-2963).

- Condition 5.2.13 requires monitoring the presence or absence of the flare pilot flame to ensure compliance with condition 5.1.11.c (condition 6.2.4 of R13-2963).
- Condition 5.2.14 requires monitoring of the flare to ensure that it is operated and maintained in conformance with its design (condition 6.2.5 of R13-2963).
- Condition 5.3.2 provides instruction on how to determine flare exit velocity (condition 6.3.2 of R13-2963).
- Condition 5.4.6 requires records of all times when the pilot flame is absent (condition 6.4.4 of R13-2963).
- Condition 5.5.4 requires reporting of any deviation from the flare operating requirements in condition 5.1.11 (condition 6.5.2 of R13-2963).
- 40 CFR 60, Subpart OOOO Requirements:
 - Condition 5.1.12 specifies requirements of 40 CFR 60, Subpart OOOO that apply to all equipment in the glycol dehydration process unit, excluding compressors (condition 6.1.5 of R13-2963). Recordkeeping requirements to ensure compliance with condition 5.1.12 are in condition 5.4.8 (condition 6.4.6 of R13-2963).
 - Condition 5.2.15 states that for affected facilities at onshore natural gas processing plants subject to 40 C.F.R. 60, Subpart OOOO, continuous compliance with VOC requirements is demonstrated if the permittee is in compliance with the requirements of 40 C.F.R. §60.5400 as specified in condition 5.1.12.e (condition 6.2.6 of R13-2963).
 - Condition 5.3.5 addresses demonstrating initial compliance for equipment leaks (condition 6.3.5 of R13-2963).
 - Condition 5.5.6 contains reporting requirements for an affected facility subject to VOC requirements for onshore natural gas processing plants subject to 40 C.F.R. 60, Subpart OOOO (condition 6.5.4 of R13-2963).
- 40 CFR 63, Subpart HH Requirements:
 - Condition 5.1.13 states that the dehydration plant is subject to 40 CFR 63, Subpart HH (condition 6.1.6 of R13-2963).
 - Condition 5.1.15 refers to Attachment B, which specifies the provisions of subpart A (General Provisions) of 40 CFR 63 that apply and those that do not apply to owners and operators of affected sources subject to 40 CFR 63, Subpart HH (condition 6.1.8 of R13-2963).
 - Condition 5.1.16 provides the method from 40 C.F.R. 63, Subpart HH to determine actual average benzene emissions to demonstrate compliance with the benzene emission limits of condition 5.1.9 and the 40 C.F.R. 63, Subpart HH benzene exemption in condition 5.1.14 (condition 6.1.9 of R13-2963).
 - Condition 5.4.9 requires records of actual average benzene emissions to demonstrate compliance with 40 C.F.R. 63, Subpart HH requirements in conditions 5.1.13, 5.1.14, and 5.1.16 (condition 6.4.7 of R13-2963).
 - Condition 5.5.7 requires a notification of compliance status for each source subject to 40 C.F.R. 63, Subpart HH (condition 6.5.5 of R13-2963).
 - Condition 5.5.8 addresses notification of a process change, as described in 40 C.F.R. 63, Subpart HH (condition 6.5.6 of R13-2963).
 - Condition 5.5.9 contains electronic reporting requirements, as described in 40 C.F.R. 63, Subpart HH (condition 6.5.7 of R13-2963).
- Condition 5.2.2 requires monthly visible emission checks. Condition 6.2.3 of R13-2963 was added to this existing condition's citation.
- Condition 5.3.3 contains visible emissions testing requirements, and condition 5.4.5 requires records of visible emissions observations (conditions 6.3.3 and 6.4.3 of R13-2963). This condition replaces previous language in condition 5.4.1.
- Flare Compliance Assessment Requirements:
 - Condition 5.3.4 states that the Director may require a flare compliance assessment to demonstrate compliance with condition 5.1.11 (condition 6.3.4 of R13-2963).
 - Condition 5.4.7 requires records of the compliance assessment (condition 6.4.5 of R13-2963).
 - Condition 5.5.5 states that if a compliance assessment is required, a testing protocol must be submitted (condition 6.5.3 of R13-2963).
- Condition 5.4.2 was added requiring records of HAP emissions to demonstrate compliance with condition 5.1.5 (condition 4.4.4 of R13-2963).
- Condition 5.5.1 contained reporting requirements added under 45CSR§30-5.1.c. These requirements were replaced with new, but similar R13 language (condition 6.5.1 of R13-2963).

Emergency Generators

With this modification, two emergency generators (EG01 and EG02) were added to this permit. These generators were previously permitted by G60-C041. These generators were added to the emission units table, and Section 1.2 was updated to list G60-C041 as an active permit.

Section 7, which lists applicable requirements for the generators, was added to this permit. The applicable requirements are as follows:

- Condition 7.1.1. cites sections 5 and 8 of General Permit G60-C as applicable to the generators.
- Condition 7.1.2. lists maximum allowable emissions for each generator, as specified in G60-C041.
- Conditions 7.2.1., 7.3.1., 7.4.1., and 7.5.1. reference applicable requirements in G60-C.
- G60-C is included in Attachment C.
- EG01 and EG02 are subject to 40 C.F.R. 60, Subpart JJJJ and 40 C.F.R. 63, Subpart ZZZZ. Compliance with 40 C.F.R., Subpart ZZZZ is achieved through compliance with 40 C.F.R. 60, Subpart JJJJ. Thus, there are no additional requirements from Subpart ZZZZ that apply to EG01 and EG02 according to 40 C.F.R. §63.6590(c). The 40 C.F.R. 60, Subpart JJJJ requirements are included in Section 8 of Class II General Permit G60-C.

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

45CSR10—To Prevent and Control Air Pollution from the Emissions of Sulfur Oxides: The flare (F1) is exempt from this rule according to 45CSR§10-2.8; the flare does not meet the definition of a fuel-burning unit in 45CSR§10-2.8. The non-applicability of 45CSR10 to the flare was added to condition 3.7.2.

Greenhouse Gas Tailoring Rule: There have been no changes that would have triggered a PSD permit. As such, there are no applicable GHG permitting requirements.

Request for Variances or Alternatives

None.

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: May 24, 2013
Ending Date: June 24, 2013

All written comments should be addressed to the following individual and office:

Rex Compston, P.E.
Title V Permit Writer
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Point of Contact

Rex Compston, P.E.
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
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Response to Comments (Statement of Basis)

Not applicable.